

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group 1, claims 1-28 and 56-61 in the reply filed on 6/17/08 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 6-9, 11, 12, 15, 16, 19 and 56-61 are rejected under 35 U.S.C. 102(b) as being anticipated by Loftus et al. (U.S. PATENT NO. 4,885,796).

-Regarding claims 1, 19 and 56, Loftus et al. disclose a transmitter apparatus comprising: a microphone operable to produce electrical signals representing acoustic utterances (**microphone MK-1 as disclosed in col. 4 lines 35-38**); a transmitter circuit in communication with said microphone and operable to transmit electromagnetic radiation representing said acoustic utterances for reception by a receiver (**transmitter 40 as disclosed in fig. 3 and further disclosed in col. 3 lines 54-57**); a housing having first and second opposite end portions and a retention portion between said first and second opposite end portions (**see fig. 3**), said retention portion being operable to cooperate with a receptacle on a breathing apparatus to facilitate installation and

removal of said transmitter apparatus on said breathing apparatus **(air inlet opening 36 and transmitter 40 as disclosed in fig. 3).**

-Regarding claim 2, Loftus et al. further disclose said retention portion is operable to frictionally engage with said receptacle on said breathing apparatus **(see fig. 2 and fig. 3).**

-Regarding claim 6, Loftus et al. further disclose said microphone is on one of said first and second opposite end portions of said housing **(see fig. 3).**

-Regarding claim 7, Loftus et al. further disclose power terminals for cooperating with a power source to permit said power source to provide energy for powering said transmitter apparatus **(as disclosed in fig. 4 and further disclosed in col. 4 lines 16-26).**

-Regarding claim 8, Loftus et al. further disclose said power terminals are inside said housing **(it is inherent for the power terminals to be inside said housing).**

-Regarding claim 9, Loftus et al. further disclose a charging port for receiving energy supplied externally to said housing and for providing said energy to said power terminals **(as disclosed in col. 4 lines 16-26).**

-Regarding claims 11 and 12, Loftus et al. further disclose said retention portion is curved and concave **(as disclosed in fig. 2 and fig. 3).**

-Regarding claim 15, Loftus et al. further disclose said housing is modular **(as disclosed in fig. 2 and fig. 3).**

-Regarding claim 16, Loftus et al. further disclose a breathing apparatus having a receptacle for receiving and holding said housing therein **(as disclosed in fig. 2 and fig. 3).**

-Regarding claim 57, Loftus et al. further disclose receiving said transmitter apparatus comprises receiving said transmitter apparatus in said receptacle on a user-facing side of said mask **(as shown in fig. 2 and fig. 3).**

-Regarding claim 58, Loftus et al. further disclose receiving said transmitter apparatus between a breathing valve and a chin seal defining said receptacle in said mask **(as shown in fig. 2 and fig. 3).**

-Regarding claim 59, Loftus et al. further disclose receiving a portion of said chin seal between opposite end portions of said transmitter apparatus **(as shown in fig. 2).**

-Regarding claim 60, Loftus et al. further disclose receiving a portion of said chin seal in a concave portion of said transmitter apparatus **(as disclosed in fig. 2 and fig. 3).**

-Regarding claim 61, Loftus et al. further disclose receiving a portion of said chin seal adjacent a curved portion of said transmitter **(as disclosed in fig. 2 and fig. 3).**

4. Claim 28 is rejected under 35 U.S.C. 102(b) as being anticipated by Bieback et al. (U.S. PATENT NO. 6,121,881).

-Regarding claim 28, Bieback et al. disclose a system facilitating communications between wearers of a breathing apparatus and a listener within

a range of at least one of the wearers of the breathing apparatus, the system comprising: a plurality of transmitters held in respective receptacles in respective breathing apparatuses for transmitting electromagnetic radiation representing acoustic utterances made by at least one of the wearers **(a mask 100 including a communication device 102 which includes a transceiver 112 for transmitting RF signals as disclosed in fig. 1-3 and col. 5 line 41-col. 6 line 4);** a plurality of receivers supported by respective wearers, for receiving said electromagnetic radiation representing said acoustic utterances from at least one of said transmitters **(a mask 100 including a communication device 102 which includes a transceiver 112 for receiving RF signals as disclosed in fig. 1-3 and col. 5 line 41-col. 6 line 4);** and a plurality of speakers supported by said respective wearers, said speakers being controlled by respective said receivers to audibly broadcast a reproduction of said acoustic utterances represented by said electromagnetic radiation transmitted by at least one of said transmitters **(ear piece 103 as disclosed in fig. 1-3, fig. 6 and further disclosed in col. 5 lines 57-59 and col. 7 line 63-col. 8 line 3).**

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loftus et al. (U.S. PATENT NO. 4,885,796) in view of Sibbald (U.S. PATENT NO. 7,177,433).

-Regarding claims 3-5, Loftus et al. disclose all the limitations as claimed in claim 1. However, Loftus et al. fail to specifically disclose a compensator for compensating for distortions made to said acoustic utterances.

Sibbald discloses a compensator for compensating for distortions made to said acoustic utterances **(compensation filter "F" as disclosed in fig. 8)**.

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the transmitter apparatus of Loftus et al. to include the compensation filter as disclosed by Sibbald. One is motivated as such in order to provide improvement to the communication quality in a noisy environment.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Loftus et al. (U.S. PATENT NO. 4,885,796).

-Regarding claim 10, Loftus et al. disclose all the limitations as claimed in claims 1, 7 and 9. Although Loftus et al. does not explicitly point out the location of a charging socket is on an end of said housing, opposite said end on which said microphone is located, it is obvious that the location of the charging socket is a design choice and does not have to be identical.

8. Claims 13, 14, 17, 18, 20-23 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loftus et al. (U.S. PATENT NO. 4,885,796) in view of Bieback et al. (U.S. PATENT NO. 6,121,881).

-Regarding claim 13, Loftus et al. disclose all the limitation as claimed in claim 1. However, Loftus et al. fail to specifically disclose said retention portion has a leading edge and a trailing edge, said leading edge being thicker than said trailing edge.

Bieback et al. disclose said retention portion (**communication device 102**) has a leading edge and a trailing edge, said leading edge being thicker than said trailing edge (**as disclosed in fig. 2**).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the retention portion of Loftus et al. to include the communication device as disclosed by Bieback et al. One is motivated as such in order to be more space efficient.

-Regarding claim 14, the combination further discloses a wedge shaped cross section (**Bieback et al., as disclosed in fig. 2**).

-Regarding claim 17, the combination further discloses a receiver operable to be supported by a wearer of the breathing apparatus and operable to audibly broadcast a reproduction of said acoustic utterances in response to receipt of said electromagnetic radiation at said receiver (**Bieback et al., portable transceiver 11 is created by attaching a radio receiver to a standard portable transceiver and picks up, via pick-up coil 94, and causes the**

portable transceiver 11 to transmit the voice signal 90 in an amplified strength to command unit 70 as disclosed in fig. 13 and col. 8 lines 34-38).

-Regarding claim 18, the combination further discloses said receiver is operable to produce signals representing said acoustic utterances in response to said electromagnetic radiation and wherein said system further comprises a repeater operable to re-transmit said signals to a remote receiver **(Bieback et al., the signals transmitted from the transceiver during PTT communication are received by a repeater as disclosed in fig. 10 and col. 7 lines 53-59).**

-Regarding claims 20 and 25-27, Loftus et al. disclose a method of facilitating communications for a wearer of a breathing apparatus, the method comprising: transmitting from a transmitter on the breathing apparatus electromagnetic radiation representing acoustic utterances made by the wearer of the breathing apparatus for reception by a receiver supported by the wearer **(transmitter 40 as disclosed in fig. 3 and further disclosed in col. 3 lines 54-57).** However, Loftus et al. fail to specifically disclose audibly broadcasting a reproduction of said acoustic utterances in response to receipt of said electromagnetic radiation at said receiver.

Bieback et al. disclose audibly broadcasting a reproduction of said acoustic utterances in response to receipt of said electromagnetic radiation at said receiver **(Bieback et al., portable transceiver 11 is created by attaching a radio receiver to a standard portable transceiver and picks up, via pick-up coil 94, and causes the portable transceiver 11 to transmit the voice signal**

90 in an amplified strength to command unit 70 as disclosed in fig. 13 and col. 8 lines 34-38).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the transmitter apparatus of Loftus et al. to include the receiver as disclosed by Bieback et al. One is motivated as such in order to provide for a low power mask to mask communication.

-Regarding claim 21, the combination further discloses transmitting from said transmitter mounted on said breathing apparatus (**Loftus et al., transmitter 40 as disclosed in fig. 3 and further disclosed in col. 3 lines 54-57).**

-Regarding claim 22, the combination further discloses transmitting from a removable transmitter mounted in said breathing apparatus (**Loftus et al., transmitter 40 as disclosed in fig. 3 and further disclosed in col. 3 lines 54-57; and Bieback et al., the communication device can be easily removed by releasing the camming lever 136 as disclosed in fig. 4 and col. 6 lines 6-34).**

-Regarding claim 23, the combination further discloses producing signals in response to said electromagnetic radiation and transmitting said signals to a repeater for re-transmission to a remote receiver (**Bieback et al., portable transceiver 11 is created by attaching a radio receiver to a standard portable transceiver and picks up, via pick-up coil 94, and causes the portable transceiver 11 to transmit the voice signal 90 in an amplified strength to command unit 70 as disclosed in fig. 13 and col. 8 lines 34-38).**

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Loftus et al. (U.S. PATENT NO. 4,885,796) in view of Bieback et al. (U.S. PATENT NO. 6,121,881) and further in view of Sibbald (U.S. PATENT NO. 7,177,433).

-Regarding claim 24, the combination of Loftus et al. and Bieback et al. discloses all the limitations as claimed in claim 20. The combination further discloses producing electrical signals in response to said electromagnetic radiation, said electrical signals representing said acoustic utterances **(Bieback et al., portable transceiver 11 is created by attaching a radio receiver to a standard portable transceiver and picks up, via pick-up coil 94, and causes the portable transceiver 11 to transmit the voice signal 90 in an amplified strength to command unit 70 as disclosed in fig. 13 and col. 8 lines 34-38).** However, the combination fails to disclose filtering said signals to correct for distortions.

Sibbald discloses a compensator for compensating for distortions made to said acoustic utterances **(compensation filter "F" as disclosed in fig. 8).**

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the transmitter apparatus of Loftus et al. and Bieback et al. to include the compensation filter as disclosed by Sibbald. One is motivated as such in order to provide improvement to the communication quality in a noisy environment.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PING Y. HSIEH whose telephone number is (571)270-3011. The examiner can normally be reached on Monday-Thursday (alternate Fridays) 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 2618

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